

Supplementary Appendix

This appendix has been provided by the authors to give readers additional information about their work.

Supplement to: Vaduganathan M, Vardeny O, Michel T, McMurray JJV, Pfeffer MA, Solomon SD. Renin–angiotensin–aldosterone system inhibitors in patients with Covid-19. N Engl J Med. DOI: 10.1056/NEJMSr2005760

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Table S1. Summary of select epidemiological reports examining the clinical profiles of patients with COVID-19 in China

Study	China PEACE Million Persons Project ¹	China Hypertension Survey ²	Guan et al. ³	Wu et al. ⁴	Zhou et al. ⁵	Ruan et al. ⁶	Zhang et al. ⁷	Wang et al. ⁸	Chen et al. ⁹	Xu et al. ¹⁰	Huang et al. ¹¹	Yang et al. ¹²
Years	2014-2017	2012-2015	2019-2020	2019-2020	2019-2020	2019-2020	2019-2020	2019-2020	2020	2020	2019-2020	2019-2020
Region	All 31 provinces in mainland China	All 31 provinces in mainland China	552 centers; 30 provinces, regions, or municipalities (44% from Wuhan city)	Single center; Wuhan city	Two centers; Wuhan city	Two centers; Wuhan city	Single center; Wuhan city	Single center; Wuhan city	Single center; Wuhan city	7 centers; Zhejiang province	Single center; Wuhan city	Systematic review
Setting	Community- dwelling adults	Community- dwelling adults	Hospitalized patients	Hospitalized patients	Hospitalized patients	Hospitalized patients	Hospitalized patients	Hospitalized patients	Hospitalized patients	Hospitalized patients	Hospitalized patients	Systematic review
Total Sample	1,738,886	451,755	1,099	201	191	150	140	138	99	62	41	46,248
Age (years)	Mean 56 (SD: 10)	Mean 43 (95% CI: 43-44)	Median 49 (IQR: 41-58)	Median 51 (IQR: 43-60)	Median 56 (IQR: 46-67)	Median 50 (IQR: 44-81) of those discharged; Median 67 (IQR: 15-81) of those who died	Median 57 (IQR: 25-87)	Median 56 (IQR: 42-68)	Mean 55.5 (SD: 13)	Median 41 (IQR: 32-52)	Median 49 (IQR: 41-58)	Median 46
Hypertension (%)	45%	23%	15%	19%	30%	35%	30%	31%	NR	8%	15%	17%
Diabetes mellitus (%)	6%	NR	7%	11%	19%	17%	12%	10%	NR	2%	20%	8%
Cardiovascular disease (%)	1% ^a	NR	3%	4%	8%	9%	5%	14.5%	40%	NR	15%	5%
Cerebrovascular disease (%)	2% ^b	NR	1%	NR	NR	8%	2% ^b	5%		2%	NR	NR
Chronic kidney disease (%)	NR	NR	1%	1%	1%	1%	1%	3%	NR	2%	NR	NR
Treated with ACEi/ARB	26% ^c	31.5 ^c	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Systolic blood pressure (mmHg)	NR	Mean 126 (95% CI: 125-127)	NR	NR	NR	NR	NR	NR	NR	NR	Median: 125 (IQR: 119- 135)	NR

While COVID-19 has evolved rapidly into a global pandemic, detailed clinical profiles of patients have only been described in China. As such, the China PEACE Million Persons Project¹ and the China Hypertension Survey² are included for reference as epidemiological comparators prior to COVID-19. Yang et al.¹² present a systematic review of over 40,000 patients including many described in the other included reports.

^a Reflects prior myocardial infarction

^b Reflects prior stroke

^c Among patients with known hypertension receiving therapy

Abbreviations: ACEi = angiotensin-converting enzyme inhibitor; ARB = angiotensin receptor blocker; CI = confidence interval; IQR = interquartile range; NR = not reported; PEACE = China Patient-Centered Evaluative Assessment of Cardiac Events; SD = standard deviation

Table S2. Specialty position statements or communications supporting the maintenance of inhibitors of the renin-angiotensin-aldosterone system in clinically stable patients with COVID-19

Scientific Committee or Organization	Reference to Brief Statement or Communication
Hypertension	
International Society of Hypertension	13
European Society of Hypertension	14
High Blood Pressure Research Council of Australia	15
La Sociedad Española de Hipertensión Arterial - Liga Española para la lucha contra la Hipertensión Arterial	16
Hypertension Canada	17
Cardiovascular	
American Heart Association	18
American College of Cardiology	18
Heart Failure Society of America	18
Canadian Cardiovascular Society	19
European Society of Cardiology	20
British Society for Heart Failure	21
British Cardiovascular Society	21
Nephrology	
The Renal Association, United Kingdom	22
General Medicine	
American College of Physicians	23

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